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An Experimental Approach

to the Study of

Status Relations in Informal Groups

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An Experimental Approach To The Study Of Status Relations In Informal Groups

Introduction

The present investigation was aimed at obtaining experimentally precise indices of the status relations among members of small in-groups existing in actual life. It represented an attempt to validate sociometric indices against an experimental situation.

Such an experimentally ascertained index, which is always the ultimate test for any theory whenever feasible, would afford us a technique of tapping status and role relationships that would be more rigidly controlled but less time consuming than certain other devices.

This unit of research represents an extension to the group level of an approach found to have validity at the individual level. In the previous study, reported earlier (5), it was found that the relationship between individuals, positive or negative, was reliably reflected in the judgments of the subjects involved. The extent of agreement between estimates of one's own future performance and that of a paired partner was found to depend upon the kind and intensity of the relationship existing between the two individuals. In the case of subjects between whom there existed a strong positive relationship no significant differences were found in judgments, but in cases of negative involvements highly significant differences were found.

The present study, while investigating the relationship of subjects through judgmental activity, is not a study in judgment or level of aspiration per se. It extends to the level of status and role relations in a group the feasibility of studying motivational factors through judgmental and perceptual processes in experimental situations.

The basic assumption underlying the approach to the present problem is that the status and role relationships obtaining among members of well-defined informal groups who have interacted over a relatively extended period will have become internalized in such a way as to be revealed psychologically through judgments of the members. Ample evidence from both sociological and psychological sources lends substantial weight to the validity of this assumption.

Following this basic assumption, the problem centers around the study of small groups in which the status positions are clearly delineated or the structure unmistakably defined. Being a preliminary experimental approach in this direction, a special point was made of choosing clearly defined interpersonal and role relations such as are found in sharply delineated clique formations. Our exploratory attempts in this experimental validation work led us to the conclusion that it is not sufficient just to get a sociometric index revealing general interpersonal relations in a dormitory or classroom situation. It was deemed necessary to supplement sociometric indices through other assessment devices. Only in this way can a claim of fairness be made of the validity of obtained sociometric indices against the experimentally revealed behavior.

While a well-ascertained structure of an informal group alone affords some index of group cohesiveness, attempts were made to insure further solidarity by selecting groups in which membership should be very important to the members. Adolescent cliques of clearly demarcated status positions were singled out on the basis of agreement among multiple criteria.

The greater the factors operating toward increased group solidarity the greater we would expect the strength of the motivational factors of individual group members to be. Therefore adolescent groups from slum areas were included in the study as well as cliques from circumstances less conducive to such strong group ties.

The Problem

The aim of the present study is to investigate the relationship between level of aspiration on a given task and relative standing in the hierarchy of adolescent cliques so selected as to show the influence of factors contributing to differences in group solidarity. For this reason representatives of widely differing socio-economic backgrounds were studied.

Empirical studies of such groups by sociologists (15, 16) suggest the relationship we should expect to find between group status and aspiration level. Following the suggestions of such sociological works, Sherif generalized "that the individual's standards and aspirations are regulated in relation to the reference group to which he relates himself" (13, p. 124), and once an individual has gained status in this group, "his status aspirations and standards of attainment are determined accordingly" (13, p. 300). The validity of this position would seem to rest upon the fact that the reciprocal expectancies built up on the basis of relative standing in one's reference group(s) come to represent standardized values of the group and as such are internalized into the constellation of ego-attitudes of the individual where as sociogenic motives they operate in exercising their influence upon psychological functioning.

As has been shown (12, 2, 7, 5), level of aspiration is determined by the frame of reference within which it takes place. The concept frame of reference as it is here used signifies the totality of external and internal factors that operate in a mutually interdependent way at the given time. Within the total reference frame some factor(s), internal or external, stand out and serve as anchorages for the total experience, the "outstanding kernel of the whole experience," to use Koffka's words (6). Applied to the immediate problem, this suggests that although other factors may be causally related, one's group status, cloaked in definitive epithets and labels, may serve as the anchorage or salient variable in determining one's level of aspiration on a given task. One's expectation of his own and other group members' performance should be closely related to the expectations which have been defined in the group as appropriate to that particular status. The greater the

solidarity of the group the more we would expect this to obtain, with the extent to which it actually does offering an index of group cohesiveness and solidarity.

For the present problem this should mean that in cliques from slum areas of a large city one's expectations of his own and other clique members' future performance should be more closely related to the respective status positions occupied by each member than in groups coming from a background in which fewer factors operate to cause group solidarity. This greater relationship, if any, should be reflected in a higher correlation between status and aspiration level.

This position is lent concrete support by the findings of Whyte in his study of the "Nortons" (16), a gang in a slum area of a large eastern city of the United States. He relates that at one time the "Nortons" became seriously interested in bowling, with performance in bowling coming to represent a mark of distinction in the group. As a consequence, a high performance by top-ranking members was accepted as "natural," but a high performance by members of low status was not tolerated because this did not conform to expectations. Low ranking members were put "in their place."

Whyte describes the case of Frank, a member with a relatively low status in the group, who was a good player in bowling and ball when he was playing against outsiders but who "made a miserable showing" when playing against higher ranking members of his own group. Whyte concluded that "Accustomed to filling an inferior position, Frank was unable to star in his favorite sport when he was competing against his own group" (16, p. 19).

From the background provided by these and similar empirical findings our main general hypothesis was formulated as follows:

> The level of aspiration of a member of an adolescent clique and the estimation of that member's future performance by other group members on a task of significance to the group bears a positive relationship to the relative position in the group hierarchy occupied by the individual whose future performance is being judged.

In order to investigate in a more precise way the differential expectations related to different status positions this general hypothesis was broken into four specific hypotheses:

> 1. The higher one's status in the group the more he will tend to overestimate his own future performance on a given task.
>
> 2. The higher the group status of a given individual the greater will be the tendency of other group members toward overestimating his future performance.

3. The lower one's status in the group the less he will tend to overestimate his own future performance on a given task.

4. The lower the group status of a given individual the less will other group members tend to overestimate his future performance, even to the point of underestimation.

As has been suggested, due to the more frequent operation of stronger forces toward clique formation in slum areas, individuals from such circumstances should be expected to attach greater importance to informal group membership than individuals from more privileged socio-economic backgrounds. This greater significance of group membership should be reflected in individual motivations that give rise to stronger group ties. To examine the extent to which widely differing socio-economic backgrounds tended to accompany differences in group solidarity, a fifth specific hypothesis was added:

5. The correlation between extent of overestimation of future performance on a given task and status in the group will be higher for adolescents from a slum area than for adolescents representing a higher socio-economic background.

The hypotheses are to be tested in terms of the extent of overestimation of future performance on a significant task because this index has been found to tap personal involvements. It should be pointed out, however, that the extent of overestimation does not exclude the possibilities of underestimation of performance.

The task to be used has also been found to be meaningful and significant for the subjects to be studied (5), a necessary prerequisite for any task purporting to tap personal involvements through level of aspiration investigations.

If these hypotheses are substantiated, it should be possible to predict in a well controlled experimental situation the leadership-followership statuses of members of a group. If so, this technique would have the advantage of giving us an indirect experimental approach in detecting status and role relations that exist between members of groups. As such, it would be a precise method of checking revealed sociometric relations.

The hypotheses gain further plausibility from the findings of Chapman and Volkmann (2), Preston and Bayton (11), MacIntosh (9), Festinger (3), and Gilinski (4) which show the tendency for the level of aspiration to be shifted up or down by the introduction of "inferior" and "superior" anchorages represented by the hypothetical performance of members of groups considered inferior or superior to those of the individuals being tested. As the purported performance of a member of a specified group standing in an "inferior" or "superior" relationship to one's own group may serve as an anchorage causing increase or decrease

respectively in level of aspiration, so we should expect that one's " inferior" or "superior" standing within a group should serve as an anchorage determining either lower or higher judgments of future performance on a given task.

Although the hypotheses are formulated in relation to adolescent cliques, the results are expected to hold generally, perhaps to a somewhat lesser extent, for all informal groups under similar conditions. Experimental work is underway to extend the present work along these lines.

Subjects

As the entire study centered around the ascertaining of cliques with clear-cut structures and members who unmistakably represented different status positions in the group hierarchy, it is necessary to make clear the criteria used and the steps followed to insure the selection of appropriate subjects. It was this stage preceding the final experimentation that represented the major task of the study.

Since the advent of the sociometric technique (10), it has been employed by many to ferret out the interpersonal relationships among group members. Some investigators have combined this device with teachers' ratings (1), and others have relied upon personal observations over an extended period in determining group structure (15, 16).

In the present study all these devices were used in combination with the experimental technique. It incorporated objective observations (of teachers, counselors and experimenter) and subjective evaluations (the subjects' own responses to a sociometric questionnaire) with experimentation with the aim of establishing an abbreviated experimental technique of tapping and predicting group status and role relationships.

The first step in selecting subjects for the final step of experimentation involved finding adults who had sufficient familiarity with some well-defined clique to rate its members in terms of their status in the clique. It has been shown that authority in the group affords a better indication of status than popularity per se. Consequently, those doing the rating were instructed to rate the members' relative standing on the basis of authority they seemed to wield and the amount of activity they initiated for the group. However, it cannot be said with perfect assurance that those doing the rating always followed these criteria in making their judgments.

Subjects were selected from two major socio-economic groups, which in relation to each other, may be termed higher and lower. Subjects of the higher group (H. S. Group) were of middle class professional parents most of whom were academically attached to the University of Oklahoma. The subjects of the lower group (L. S. Group) were of laboring parents,

some unemployed, who lived in a slum area of Oklahoma City. The neighborhood in which these subjects lived was an inter-ethnic one containing a large number of Mexican families, a few Negro families, as well as Anglo-American ones.

All the cliques in the H. S. Group were independently rated by two of their teachers who had known them for at least a year. Due to the fact that these subjects were attending the University School which contained very small classes (12 to 15 students per grade) the teachers were in an excellent position to know the relative standing of each member in the clique hierarchy.

In addition to teachers' ratings, the members of one of the cliques in the H. S. Group were rated by the experimenter on the basis of his observations of it over a period of two months. This clique, comprised of five eighth grade boys, was observed in a situation that allowed for a rather wide freedom of interaction, namely, a small snackbar close to their school where these boys ate lunch every day. Although almost the entire population of the University School lunched in the school cafeteria, these five boys chose to remove themselves and eat away from the other students.

A very important task of the experimenter in this case was to observe the group without arousing any suspicions. This was made easy by the fact that other college personnel had lunch at the snackbar. A special point was made by the experimenter to always arrive before the clique and to eat lunch while the group was present. Since this particular clique almost invariably sat at the same table each day, unless it was occupied, the experimenter tried always to select a spot close enough to this table so he could inconspicuously hear the conversation among the group members.

No notes were taken in the presence of the group, but immediately after its departure the experimenter recorded his observations. To gain as clear a picture as possible of authority in the group, special attention was paid to such indications as who chose the table at which to sit (if the customary one was taken), who had his order brought to him and by whom it was brought, to whom conversation seemed to be most often directed, who told the "funniest jokes," who seemed to initiate departure, and around whom the boys centered when they started walking back toward school.

Accurate observation in terms of these criteria should afford a valid approximation of the relative authority of each member in the group. This is not to deny, however, that observations in other situations would have added to the validity of the experimenter's ratings and his assessment of the sociometric relations obtaining among the individuals.

All the cliques in Group L. S. were attending a large public junior highschool the students of which represented very similar socio-economic backgrounds. Since this situation provided less opportunity

than in the case of the H. S. Group for each teacher to be intimately familiar with each clique, all clique members of the L. S. Group were independently rated by five teachers (counselor and coach) who were sufficiently familiar with the groups to make such ratings. In addition, some of these cliques were rated by the recreational director and coach at the Salvation Army Center with which they had been affiliated for as long as two years.

Cliques thus selected and rated by persons in key vantage positions as being characterized by clearly delineated status relations were then administered a sociometric questionnaire which was further aimed at ferreting out positions of authority in the group rather than simply popularity. On the questionnaire subjects were asked to indicate who most often and least often thought up things for them to do, who would be most likely and least likely to select the movie all would want to see in case there was indecision, and who would be elected president and who would receive no office if the group organized a club. Questions as to whom one would prefer to sit by in school, to have as tentmates on a camping trip, as well as questions intended to reveal whether or not subjects maintained their membership in the clique in and out of school were also asked.

To check the awareness of the existing group structure, subjects were asked, at the end of the questionnaire to prevent biasing preceding answers, whether or not any member in the clique could be called the leader, and if so, who. No limit was set on the number of choices a subject could make nor the boundaries set to define who should be included in the choices. The subjects were all instructed that the reason the questions were being asked was to find out with whom they would like to throw darts so that, in addition to being paid 50 cents an hour, they could enjoy the game even more. To offer a greater freedom of choice, subjects were assured no one but the experimenter would see the results.

That subjects tended to accept this is indicated by the fact that many freely denounced their teachers and other aspects of the school life. However, no assumption was made that good rapport was established in all cases, although every effort was made to achieve this.

The sociometric questionnaires were scored by a system of weighting in which first choices were allotted a weight of five, second choices four, third choices three, fourth choices two, and all below fourth choices one. This was done for each of the six significant questions. Weighted choices were then summed and the total score of a subject was taken to represent his relative standing in the group. The procedure of weighting choices was followed to allow for the different intensities in relationship represented, for example, between a first and fifth choice.

The results obtained by the sociometric questionnaire were then compared with the adults' ratings. From groups where there was perfect agreement between these two indices, and in the case of the group

observed by the experimenter the experimenter's ratings, on the leadership and lowest positions, three subjects were selected: the leader, lowest ranking individual, and a third individual whom all ratings had placed somewhere near the middle of these two extremes. The adherence to the strict criterion of agreement between teachers' ratings and the subjects' own evaluations meant the elimination of six cliques which had satisfied all the requirements up to this point.

The three subjects thus selected, from each clique usually consisting of from four to six individuals, then participated in the main experiment in which each one estimated his own future performance and that of the other two members on a task desirable to the subjects.

To approximate more closely the pressures, expectations, etc., existing outside the laboratory, it was originally intended to use all the members of a clique in the experimentation. However, pretesting indicated that in a preliminary study of this type it was more feasible to take only representatives of the three clearly differentiated positions in the clique hierarchy, namely the top position (leader), middle status member and bottom position (lowest status member).

Ten groups of subjects each containing the leader, middle ranking and lowest standing members of an adolescent clique were used in the final experimentation. These 10 cliques were selected from among 16 such groups which contained a total membership of 35 individuals. The six groups of 35 individuals not subjected to the final experimentation were eliminated because of failure to meet the criterion of agreement between the sociometric results and teachers' (counselor, experimenter, coach) ratings.

Four of the cliques (six male and six female subjects) which participated in the final experimental situation were of the H. S. Group. These subjects were all tested in a laboratory on the North Campus of the University of Oklahoma, one block from the University School which they attended.

The remaining six experimental cliques (12 male and six female subjects) were of the L. S. Group. All of these were tested at Oklahoma City in an experimental room provided at the Salvation Army Center in their neighborhood where many of the subjects came for outside recreation.

Apparatus

The apparatus was the same as that reported earlier by Harvey and Sherif (5). It consisted of a specially constructed dart board and five feathered darts. The dart board included a detachable frame on which was stretched a target containing 10 concentric circles ranging in numerical score value in series of two from 2, the outside circle, to 20, the inside circle or bull's eye. Behind this target mounted on

beaverboard was another target of the same size but without the concentric circles. The first target was displayed only to allow the subjects to familiarize themselves with approximate score values of given areas on the target. The psychological rationale for this has been presented elsewhere (5).

Procedure

Likewise, the procedure is the same as that previously followed (5). Subjects were instructed that the experiment was a hand and eye coordination test, an explanation formerly found to be appropriate and acceptable to the subjects. To aid in keeping the subjects doing their best, they were reminded that, although they would not be told their scores, 20 was the best possible score and zero the worst. In the earlier study it was found that although subjects were not told their score they were able to estimate with very high accuracy the score actually made on each trial.

The subjects were cautioned to always estimate the score they actually expected to make or be made, not the score they hoped to make or be made. Each subject was, after 10 practice trials, given 50 trials, with the throwing of one dart representing a trial. Before each trial the subject who was throwing called aloud and recorded the score he expected to make on that particular trial, and after each trial he called aloud and recorded the score he judged he actually made on the dart just thrown. The other two subjects only recorded their estimates of performance of the one who was throwing, before and after each trial. They made no judgment aloud. As soon as they had recorded their estimates they signified this to the one throwing at which time he called his judgment aloud.

The order in which the darts were thrown was always determined by the subjects themselves. The tendency was for the order to follow status, with the leader throwing first and the lowest ranking member throwing last. Usually the subjects consented unanimously to this order.

After each subject had thrown 50 darts a questionnaire was administered which was aimed primarily at ascertaining expectations each member held for himself and the other group members before they began to throw.

All subjects were tested only in the presence of the experimenter. All were paid 50 cents an hour for their participation.

Results

To test the hypotheses it was necessary to determine the extent to which each subject overestimated or underestimated his own future performance and that of the other two status occupants, then correlate this with group status.

The first step was carried out by subtracting from each estimate of future performance the score judged to have been made (by oneself or the other members, depending on who was throwing) on that particular trial. The differences for the 50 trials were summed and divided by N, giving the mean difference between estimates of future performance and judgments of actual performance as it was perceived by the subjects. These mean difference scores, following the usual practice, are referred to as D-Scores.

For each subject three D-Scores were computed, the difference between his own aspirations and judgments of actual performance, and the similar differences for his judgments of the performance of each of the other two members. D-Scores of a positive value would, of course, indicate overestimation, and negative D-Scores would show underestimation.

The first four hypotheses are to be tested by comparisons of D-Scores of each status representative for his own performance and the D-Scores of each member for his estimates of the performance of other higher or lower status members.

The most crucial comparisons are those between the two extreme status positions in the group hierarchy, top and bottom. Because of the greater ego-distance between these two positions, the difference between them should be more consistent than the difference between either of them and the more adjacent middle position.

The results given in Table I are pertinent to hypotheses one and three. From this table presenting the combined data of all groups, it can readily be seen that the higher an individual's status in an

Table I

Means of D-Scores of the Leader, Middle Ranking and Lowest Standing Member for Their Own Performance.

Status Position:	
Leader	3.164
Middle	2.49
Low	.90

adolescent clique the more he will tend to overestimate his future performance on a significant task.

The mean of the D-Scores of the leaders for their own performance was four times as great as the D-Scores of the lowest ranking members for their own performance and approximately one and a half times as great as the D-Scores of middle standing members for their own performance.

The relationship between mean D-Scores for the three status positions was found to exist whether the results for the two groups, H. S. and L. S., were combined or analyzed separately.

While subjects in Group H. S. tended to overestimate their own future performance to a somewhat greater extent than did individuals in Group L. S., the differences were insignificant.

Although not shown in the table, it is very important to point out that three of the lowest ranking subjects actually underestimated their own future performance. In contrast, none of the top ranking or middle standing subjects underestimated their own performance.

The three individuals, two from Group L. S. and one from Group H. S., who actually performed at levels higher than they estimated appeared to be struggling to maintain their standing in their groups. It can be assumed that as a consequence they conformed completely to the group expectations of its lowest ranking members. To remain in good standing these individuals were "more Royalist than the King himself."

Table II presents the differences between D-Scores for own performance by subjects of the three status positions.

Table II

Differences Between D-Scores for Estimates of Own Performance by the Leader, Middle and Lowest Status Members

	Status Position Being Compared:		
	Leader - Middle	Leader - Lowest	Middle - Lowest
Mean Diff.	1.15	2.75	1.56
t	1.966	9.407	2.130
P	$< .10$	$< .001$	$< .10$

The greatest difference, as should be expected, lies between the magnitude of the D-Scores of the leaders' estimates of their own performance and the D-Scores of the lowest ranking members' own performance. This difference is significant at below the .001 level. The differences between the D-Scores of the estimates of their own performance by the leader and middle standing individual, and the difference between the D-Scores of the middle and lowest ranking individuals for their own performance were both significant at below .10 level of confidence.

From these data we can deduce that the greater the relative distance between status positions the greater are the differences in the expectations occupants of these positions hold of themselves.

The higher a member's standing in the group hierarchy, the more he will tend to overestimate his future performance on a meaningful task. Conversely, the lower an individual's relative standing in the group structure, the less will he tend to overestimate his future performance, even to the point of actual underestimation in some instances.

This represents a confirmation of hypotheses one and three.

A general statement of our second and fourth hypotheses is that the extent to which other group members tend to overrate the performance of a given individual depends upon the relative standing in the group hierarchy of that particular individual. Relating to these hypotheses are the results presented in Table III which shows the mean D-Scores of the leader, middle standing and lowest ranking members based on their estimates of the performance of other group members occupying higher or lower status positions. Table I, it will be recalled, gave the mean D-Scores based upon the estimates of his own performance by each of the status representatives.

Table III

The Mean D-Scores of the Leader, Middle and Lowest Status Members Based on Their Estimates of the Performance of Other Group Members Occupying Higher or Lower Status Positions

Status Position Being Rated:	Leader		Middle		Lowest	
Status of Member Judging:	Middle	Lowest	Leader	Lowest	Leader	Middle
	2.99	2.45	1.66	.98	-.13	-.18

The data for Group H. S. and Group L. S. were also analyzed separately. The trend revealed for each group when considered separately was the same as that in the combined results presented in Table III.

These results permit the inference that the higher the standing in the group hierarchy of a given individual, the greater are the expectations other group members hold of him. Thus the higher a subject's status the more his future performance was overestimated by lower ranking subjects. Conversely, the lower the standing in the group hierarchy of a given individual the lower were the expectations other group members tended to have for him, so much lower in fact that it was the tendency for higher standing members to underestimate the performance of the lowest standing member.

Thus hypotheses two and four are substantiated.

Supporting this generalization in a summary but crucial way are the results presented in Table IV which were obtained by having each subject indicate on a five-point scale ranging from very well to very poorly the quality of performance he had expected of each of the three status representatives, including himself, before the darts were thrown. Greater accentuation of these results may have occurred had the ratings been made before the darts were thrown, before actual performance of the respective members had a chance to exert its full weight. However, such accentuation was forfeited as an additional precaution against the subjects' suspecting the real purpose of the experiment.

Table IV

The Percentage of Subjects Expressing Given Levels of Expectancy For the Performance of the Leader, Middle and Low Standing Members

Status	Quality of Expected Performance				
	Very Well	Pretty Well	Had No Idea	Quite Poorly	Very Poorly
Leader	13.3	73.3	10	3.3	
Middle		46.7	46.7	6.6	
Lowest		36.7	43.3	20	

From this table it can be deduced that it was the leader for whom subjects most frequently held high expectations, and it was the lowest standing member who most members expected to perform poorly.

The Chi-Square test revealed that the frequency of individuals indicating they had expected the leader to do very well or pretty well was significantly greater than the number expecting either the lowest ranking or middle standing subject to do well (P below .001 in both cases).

However, the difference between the number expecting the middle standing member to do well and the number expecting the lowest standing individual to do well was not significant.

To determine whether or not a member of a given status tended to overrate more his own performance than the performance of members above or below him in relative group standing, the D-Score of each individual for his <u>own</u> performance was compared with the D-Score obtained from the judgments by this <u>same</u> individual of the performance of each of the other two status occupants. These comparisons consisted of subtracting the mean value contained in Table I from corresponding values in Table III. The results obtained from these comparisons are presented in Table V.

Table V

Differences Between D-Scores for <u>Own</u> Performance and D-Scores of Estimates by the <u>Same Individual</u> for the Performance of Group Members Occupying Higher or Lower Status Positions*

	Leader - Middle	Leader - Lowest	Middle - Leader	Middle - Lowest	Lowest - Leader	Lowest - Middle
Mean Diff.	1.98	3.77	-.50	2.67	-1.55	-.08
t	3.661	6.350	-1.173	4.182	-3.165	-.145
P	$<.01$	$<.001$	$<.30$	$<.01$	$<.02$	$<.90$

*In each column heading the status mentioned first is that of the member who is estimating his own performance and the performance of the subject whose status is mentioned second. For example, Leader - Middle column gives the difference between the leader's estimate of his own performance and the leader's estimate of the performance of the middle status member.

From this table certain inferences significant to any theory of self-perception can be drawn. The higher one's status the <u>more</u> he will tend to rate his performance above that of individuals with status lower than his own.

Conversely, the lower one's standing in the clique hierarchy, the more he will tend to rate his own future performance lower than he rates that of members occupying a status above him.

Thus the leader placed his own expected performance at a significantly higher level than he did that of both the middle ranking and lowest standing members. Similarly, the middle position subject rated his own performance at a significantly higher level than he did that of the individual below him in status.

In contrast, the lowest status individual tended to estimate his own performance at a lower level than judged the performance of those above him in status. Following from the greater relative distance between them, the lowest ranking member, on the average, rated his own performance significantly lower ($P < .02$) than he rated the performance of the leader. Although the lowest standing member tended to judge his own performance slightly below his estimates of the performance of the middle status member, the difference between these estimates was not significant.

While the findings for each of the Groups H. S. and L. S. are in agreement with the results from the combined sample, certain differences between the two sub-groups that may be taken as a reflection of differences in group solidarity should be pointed out.

An index of solidarity, as we have suggested, is the relationship between status occupied and magnitude of the D-Scores for the occupant of the particular status position. If there should be perfect correlation between these two variables, every higher ranking member would have a greater D-Score for his own performance than for the performance of members below him in status. Each lower ranking member would have a smaller D-Score for the estimates of his own performance than for his estimates of the performance of members above him in status. In such a case, it could be said that group members had come to accept their relative positions in the group hierarchy and, as a consequence, the particular group was characterized by a very high degree of solidarity.

It does not appear as important that higher ranking group members should rate their own performance above lower ranking members as that lower standing members would actually place their estimates of their own performance below their estimates of the performance of higher ranking members. In a society such as ours it is the usual thing for individuals to try and expect to surpass the performance of friendly competitors. Therefore, the extent to which group members actually rated their own performance below that of higher status occupants could be taken as a significant indication of the degree to which members had seemed to accept their status in the group hierarchy and, as a consequence, would afford a valuable index of group solidarity.

In Group L. S. the tendency was more pronounced than in Group H. S. for lower standing individuals to rate their own performance below their estimates of the performance of higher ranking members. In Group

L. S. the D-Scores of the lowest ranking members for their own performance were, on the average, more than three times farther below the D-Scores of their estimates for the performance of the leader than was the case in Group H. S. The mean difference in D-Scores based on the estimates of their own performance by the lowest ranking members and D-Scores of the estimates by these same individuals of the performance of the leaders were -2.15 for Group L. S. and -.65 for Group H. S.

Furthermore, in Group L. S. the mean difference in D-Scores of middle ranking subjects for their own performance and for their estimates of the performance of the leaders (-.97) was greater than the comparable difference (-.04) for the middle ranking subjects in Group L. S.

Similarly, lowest standing subjects in Group L. S. more often rated their own performance below that of middle status individuals than did comparable individuals in Group H. S. These mean differences for Group L. S. and Group H. S. are -.22 and .03, respectively.

From these results it would appear that subjects in Group L. S. had come to accept their relative standings in the clique hierarchy to a greater extent than had individuals in Group H. S. and, as a consequence, greater cohesiveness existed among the cliques from the slum area.

This position gains added plausibility from the findings related to hypothesis five in which it was proposed that a higher correlation should exist between magnitude and direction of D-Scores and group status for cliques from Group L. S. than for those from Group H. S. To test this, it was necessary to rank each status representative of each group in terms of magnitude of D-Scores of all members for his performance.

Since the performance of each individual was estimated by three persons there were three D-Scores relating to the performance of each subject. To get just a single rank order value with which to correlate status, each of the three D-Scores for each status occupant was ranked in magnitude as 1, the highest, 2, intermediary, and 3, lowest magnitude. The values of these rank order positions were then summed and divided by 3. It was this single rank order value that was then correlated with status position.

For example, if all three members had their largest D-Scores for the leader, the leader of that group would be ranked as 1. If all three members had their smallest D-Scores for their estimates of the performance of the lowest standing individual, this lowest member would have been assigned a rank of 3 (3 plus 3 plus 3, divided by 3). If only two of the individuals had their largest D-Scores for the leader and the third individual had his smallest D-Score for the leader, then the leader would have been ranked as 1.67 (1 plus 1 plus 3, divided by 3).

The correlation analysis was carried out by use of the gross score formula. Rank order correlation was inapplicable since there were ties in rank positions.

Table VI presents the extent of correlation found between status in the clique and judgments of performance.

Table VI

Correlation Between D-Scores and Group Status (N = 30)

r	t*	P
.828	39.844	<.001

*The t-test for the significance of the correlation was computed by the formula suggested by Lindquist (8, p. 211).

From the results in this table it can be inferred that a significantly high positive relationship obtains between status in well defined adolescent cliques and estimation of performance (as indicated by D-Scores). Not only are the expectations group members have of a given individual related to the status of the member being judged and the one estimating, but also, and more significant for ego-psychology, the level at which one sets his expectations of his own performance on a task seems to be very highly related to his standing in the group.

High status in an adolescent clique tends to be accompanied by generally high expectations by all members for the occupant of the high status position. Conversely, low expectations of performance tend to be held of low ranking members by all members of the group.

Thus our general hypothesis is substantiated.

The fifth hypothesis was tested by comparing the correlation value obtained for Group H. S. with that derived for Group L. S. Table VII presents the results of this comparison.

Table VII

Correlation Between D-Scores and Status in Adolescent Cliques for Groups H. S. and L. S.

Socio-Economic Group	r	t	P
H. S. (N= 12)	.783	5.360	$<.001$
L. S. (N= 18)	.856	6.636	$<.001$

For subjects from both the slum area and professional homes a significant correlation was found to exist between judgments of performance on a task and status in the adolescent clique. The difference of .07 between the correlation values is not significant. However, being in line with results discussed earlier, this difference is further suggestive that greater solidarity existed among the cliques from the slum area than from professional homes. The extent to which the difference found between the two groups represent reflections of consistent differences in solidarity remains to be answered by future research, preferably with larger samples.

Discussion

In line with our hypotheses, the results reveal the differential expectations held by group members for different status positions. The higher one's relative standing in the group hierarchy, the greater the expectations other group members hold of him and the more he expects of himself. Conversely, the lower one's standing, the lower do all the group members, including himself, expect his performance on a given task to be.

These status relationships and reciprocal expectations revealed behaviorally in these results need not be consciously expressed by the subjects themselves. This fact was revealed by the responses of the subjects to the questionnaire administered after the experimental session. In the 10 experimental cliques only eight subjects (less than one-third) indicated that they thought some particular person in the group could be called the leader. Several subjects expressed this idea in some such words as "We just go by the majority."

As Whyte has pointed out (16), the structure of the group need not be explicitly recognized by the members for it to exert its

influence on the psychological activity of the members. This is inferred on the basis of the differential reaction of members toward each other and toward outsiders.

In the selection of appropriate clique members for the present study, criteria of status relations other than popularity alone were used. Further evidence that popularity alone is not a sufficient criterion for status and role delineations was supplied by a rather intensive investigation of a clique of eight boys in Group L. S. in which the leader ranked only fourth in popularity, according to the sociometric ratings. Two members towered head and shoulders above the leader in popularity, but even these most popular subjects when estimating the leader's future performance overestimated it even more than their own.

Furthermore, when lower ranking subjects in popularity were placed in the experimental situation with the most popular ones, only the slightest correlation was found between popularity ratings and D-Scores, or overestimation of performance. While no clear-cut conclusions can be drawn from the case of this particular clique, it does suggest a shortcoming of some of the users of the sociometric technique who equate popularity, as measured by their device, with leadership.

While a correlation may exist between popularity and leadership, as Stogdill concluded in his survey of work on leadership (14), it does not follow that the most popular person is necessarily the leader. The extent to which a member tends to initiate and direct the activity of the group seems, as Whyte maintains (16), a far more adequate index of status in the informal group than does mere popularity.

Among the most significant findings of this study for ego-psychology, and especially for self-perception, is the high correlation found between what one expects of oneself and what other group members expect of him. The greater the significance of status in a group, and group solidarity, the more we would expect this relationship to hold true. This means a higher correlation should be found between the status occupied and expectations of oneself and other group members among adolescents, who have gravitated toward each other to regain lost status and satisfy other motives, than, for example, among adults who enjoy strong and satisfying ties in a number of groups.

Similarly, even among adolescents, the relationship should be greater for cliques whose members are welded even more tightly together by inadequate satisfactions in the home and other groups outside their clique, and by strong pressures wielded against the clique from outside sources such as are directed against delinquent gangs.

As a probable reflection of this, a higher correlation was found between status and expectations of oneself and other clique members coming from a slum area of a large city than for subjects from more adequate professional homes. This, coupled with findings discussed

earlier, seems to indicate that on the whole the cliques from the more underprivileged background were characterized by greater solidarity than those from professional backgrounds in which circumstances conducive to such strong clique ties are expected to operate to a lesser extent.

Our findings seem to point to the conclusion that the expectations an occupant of a given status in a well-defined informal group holds of himself are largely determined by the expectations which have become defined by the group as appropriate to that status. As any group norm or value which is internalized may serve as an anchorage in determining judgments and perceptions of related situations, so it seems that the definitive labels and epithets attached to each status position, and thus its occupant, by the group may serve as salient anchorages in determining one's judgments and perception of one's self as well as the other group members. Our knowledge of intergroup relations, typified by such a phenomenon as prejudice, shows our perception of and reaction to members of out-groups to follow this same general principle, i.e., to take place in the basis of norms of the group which prescribe the relative distance out-group members are to be held from in-group members, and thus the appropriate behavior toward the out-group members.

Certainly, an outstanding problem for the whole area of ego-psychology is to determine to what extent our self-perceptions or conceptions, our very self-esteem, are a function of our group status and the definitive labels assigned it—in the family, play groups, adolescent cliques and adult reference groups. Such work would contribute immeasurably to the understanding of how broad cultural and social processes operate to influence the individual, always the problem area of the psychologist. At the same time a more solid ground will be laid on which to advance to the study of intergroup relations, by showing that one perceives and reacts to himself, other in-group members, and out-group members in line with the prescribed norms of his group.

A fact that stood out in these results is that psychologically there seems to be a greater distance between the leadership and middle positions than between the middle and lowest status positions. We shall follow the implications of this fact in our research because of the light it may throw on prestige and power relations within groups.

Summary and Conclusions

The study aimed at establishing a short-cut experimental technique of determining the status and role relationships existing in small informal groups and at the same time to validate sociometric indices against an experimental situation.

The general hypothesis was:

The level of aspiration of a member of an informal clique and the estimation of that member's future performance by other

group members on a task of significance to the group bears a positive relationship to his relative position in the group hierarchy.

From this general hypothesis, five specific hypotheses were derived.

Ten adolescent cliques singled out from among 16 such cliques on the basis of agreement between teachers' ratings, personal observations and sociometric results (subjects' own evaluations), were subjected to the experimental situation. Three members from each clique, i.e., the leader, middle ranking and lowest standing members whom all the criteria had placed at these respective positions, were given the task of estimating their own future performance and that of the other two status occupants on an experimental task.

Four of the experimental cliques consisted of individuals from professional families living in a university town. The other six experimental cliques came from families of unskilled laborers living in an inter-ethnic slum neighborhood of a large city.

From the results obtained the following conclusions were reached:

1. The higher one's status in the group the more he tended to overestimate his own future performance on a given task.

2. The higher the group status of a given individual the greater was the tendency of other group members to overrate his performance.

3. The lower one's status in the group the less he tended to overestimate his own performance.

4. The lower the group status of a particular individual the less other group members tended to overrate his performance, even to the extent of underestimating it.

5. The correlation between extent of overestimation of performance on a given task and status in the group was higher for individuals from slum areas of a large city than for subjects from a higher socio-economic background. This was taken as suggestive of greater solidarity among the cliques from the slum area.

The level at which one sets his expectations of his own performance on a task is highly related to his standing in the group.

The results obtained point to the feasibility of using simple judgmental processes in an experimental situation as indices of status and role relations existing in small group structures. As such, it can serve for validation of interpersonal relations obtained through the use of sociometric and other devices in this area.

Being indirect, in the sense of a projective technique, less time consuming and lending itself to quantitative analysis of data, such a technique may prove to be an effective approach to the study of status and role relations.

The sensitivity and applicability of this indirect experimental method of tapping role relations through judgmental activity, of course, rests upon finding the gradation of structure of the experimental situation appropriate to the detection of experimentally introduced variables (social status, role relations and other motivational factors).

We are extending the present work along the lines of finding experimental tasks that will be most appropriate for tapping the effects of various status positions and role reciprocities in interpersonal and group relations.

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